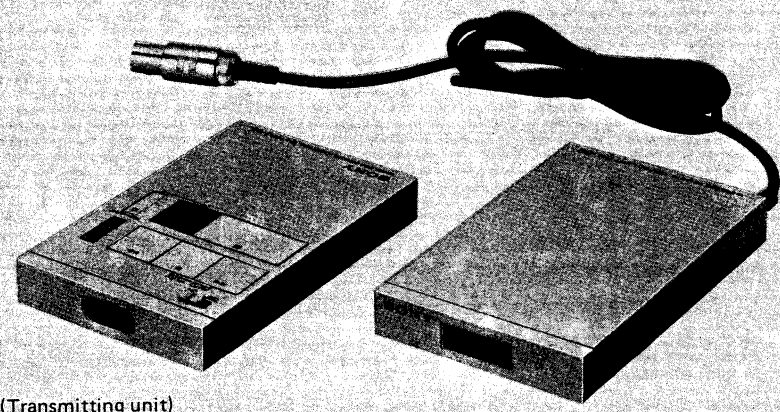
RM-80

US Model
Canadian Model
AEP Model
UK Model
E Model



(Transmitting unit)

(Receiving unit)

WIRELESS REMOTE CONTROL UNIT

SPECIFICATIONS

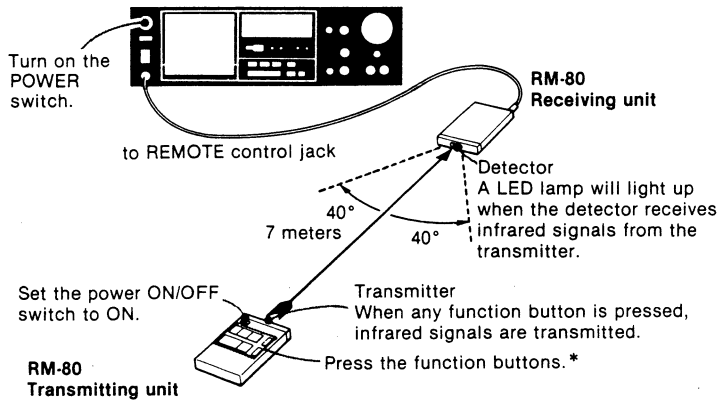
Remote control system	Infrared control
Power requirements	Receiver: 6 V dc with four batteries IEC designation R3 (size AAA)
	Transmitter: 3 V dc with two batteries IEC designation R3 (size AAA)
Dimensions	Receiver and Transmitter: 70 × 17 × 110 mm (w/h/d) ($2\frac{7}{8} \times \frac{11}{16} \times 4\frac{3}{8}$ inches)
Weight	Receiver: 154 g (5.5 oz)
	Transmitter: 95 g (3.4 oz) including batteries

MICROFILM

SONY®
SERVICE MANUAL

MEMO

OPERATION



* The functions of these buttons are the same as those of the similar buttons on the deck.

- You can remotely control the cassette deck within the range illustrated above.
- You can still use the function buttons on the deck when the deck is being controlled by the RM-80.
- Do not let anything lie on the transmitting unit for a long time, because if the function buttons are kept depressed they may become inoperative.

To save energy

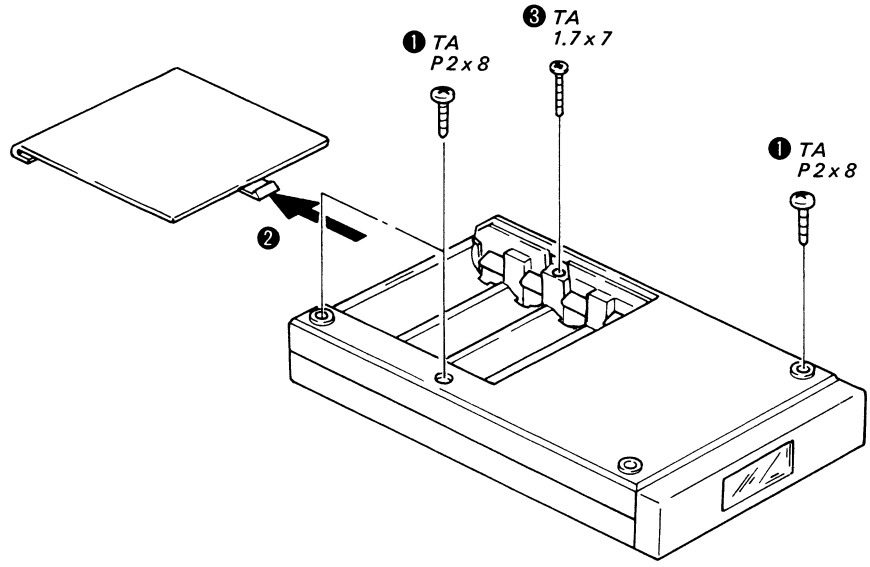
Transmitting unit: Set the power ON/OFF switch to OFF when the remote control unit is not in use.

Receiving unit: Power is supplied by switching on the POWER switch of the deck. To prolong the life of battery, pull out the plug from the REMOTE control jack when you plan to use the deck for a long period of time without using the remote control operation.

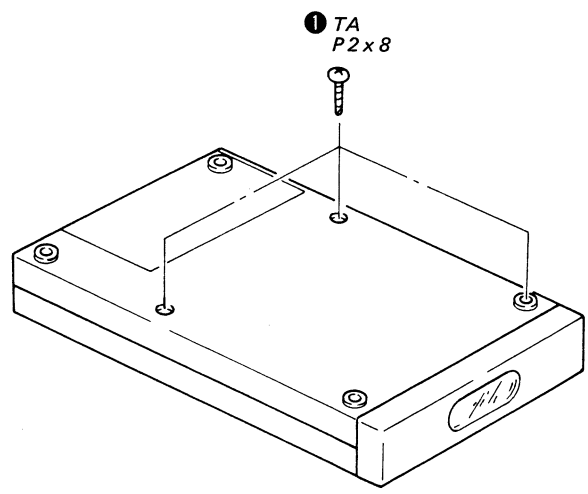
1. DISASSEMBLY

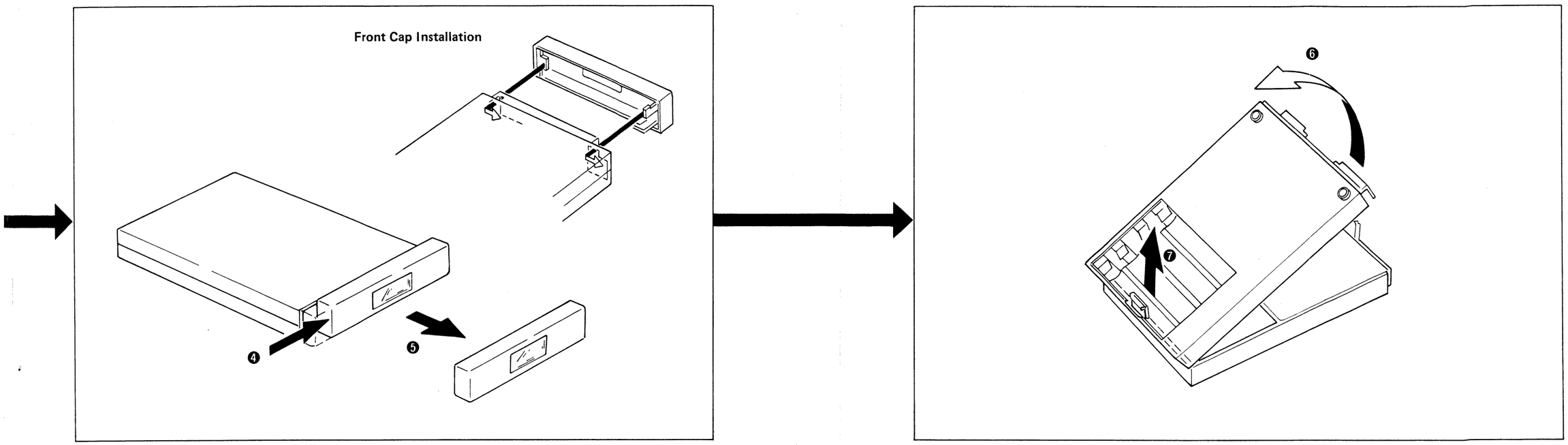
Note: Follow the disassembly procedure in the numerical order given.

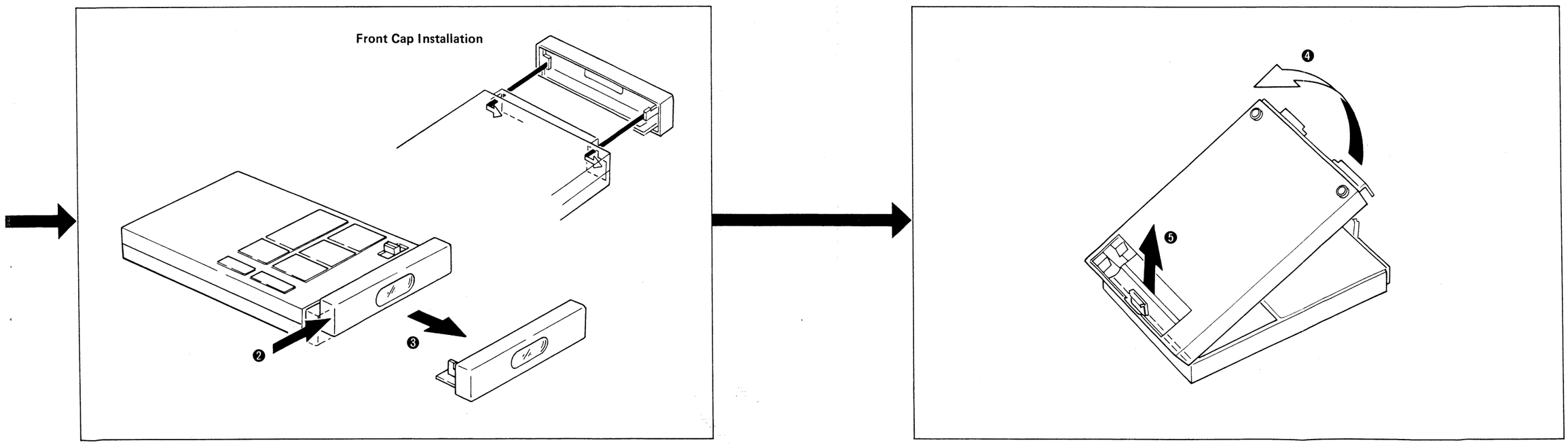
RECEIVER REMOVAL



TRANSMITTER REMOVAL

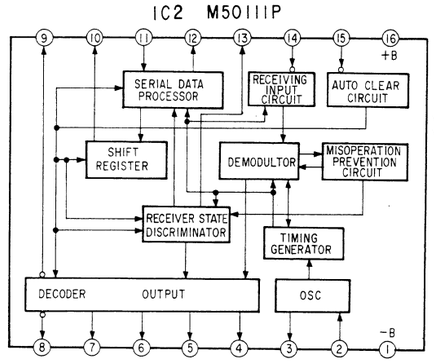


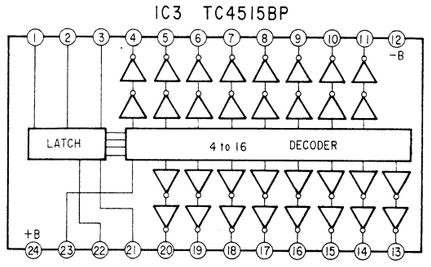

Front Cap Installation
❹
❺
❻
❼


Front Cap Installation
❷
❸
❹
❺

2-1. MOUNTING DIAGRAM

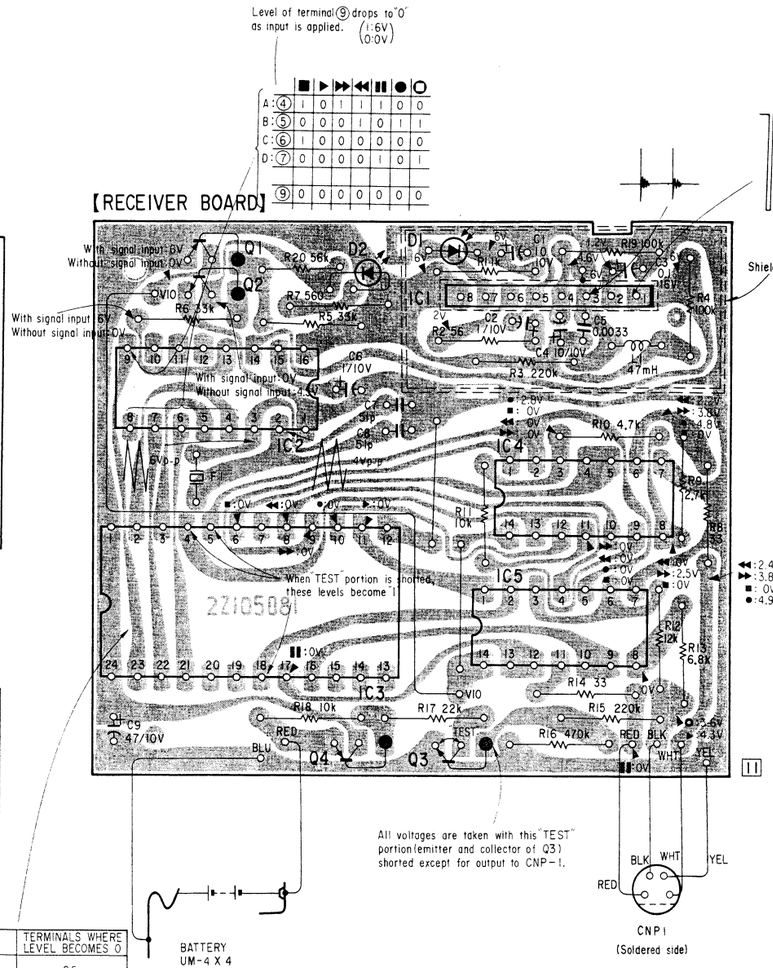
— Receiver Section —

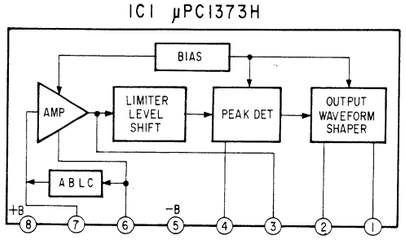


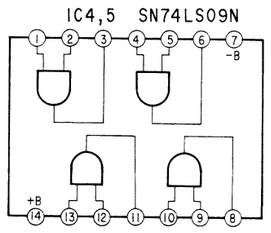


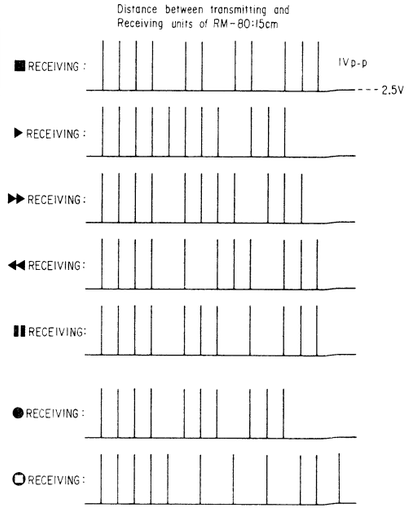
INPUT	LATCH INPUT(DECIMAL)	TERMINALS WHERE LEVEL BECOMES 0
■	0101 (5)	S5
▶	0000 (0)	S0
▶▶	0001 (1)	S1
◀◀	0011 (3)	S3
▮▮	1001 (9)	S9
●	0010 (2)	S2
○	1010 (10)	S10

SO–S10 outputs are selected at each input and only one terminal level becomes "1"


【RECEIVER BOARD】
Level of terminal ⑨ drops to "0" as input is applied. (1:6V 0:0V)
A: ④ 1 0 1 1 1 0 0
B: ⑤ 0 0 0 1 0 1 1
C: ⑥ 1 0 0 0 0 0 0
D: ⑦ 0 0 0 0 1 0 1
⑨ 0 0 0 0 0 0 0
5.5V p-p
Shield plate
With signal input: 6V Without signal input: 0V
When TEST portion is shorted, these levels become 1
All voltages are taken with this "TEST" portion(emitter and collector of Q3) shorted except for output to CNP-1.
BATTERY UM-4 X 4 6V
CNP1 (Soldered side)
BLK WHT YEL RED



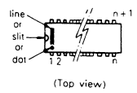
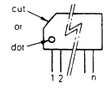
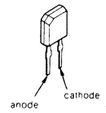
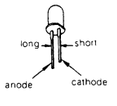




Note:

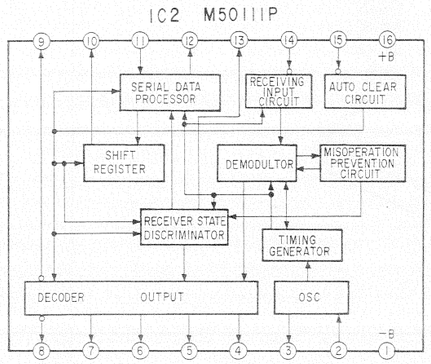
- ○— : parts extracted from the component side.

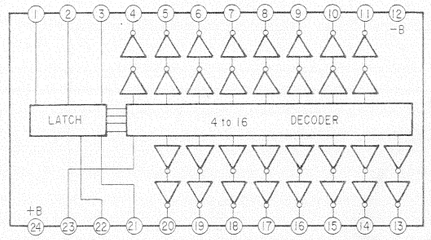
Semiconductor Lead Layouts

M50111P SN74LS09N TC4515BP	μPC1373H	PH302B	RY5504S-1	2 SA937 2 SC1545A 2 SC2021 2 SC2673
				

2-1. MOUNTING DIAGRAM

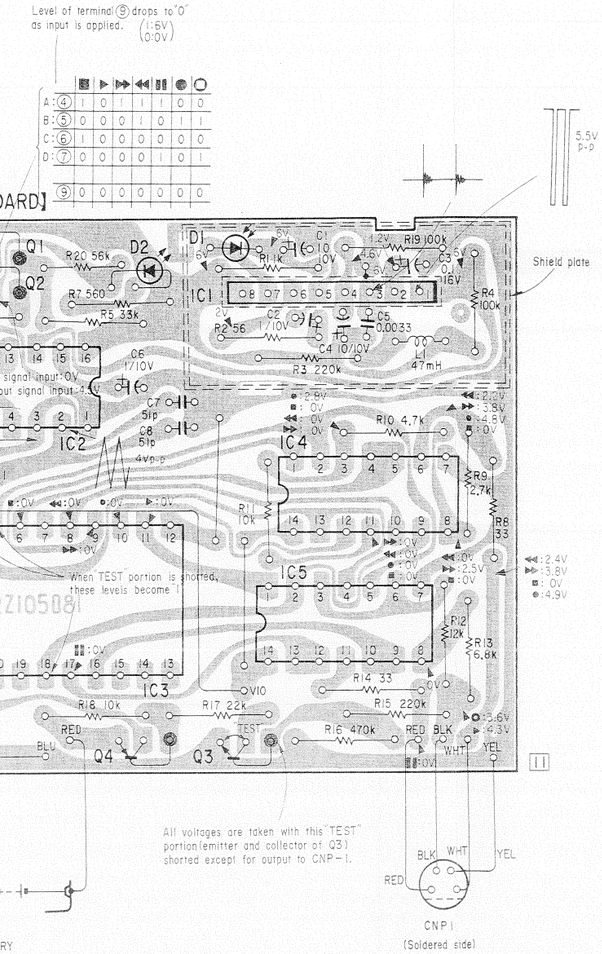
— Receiver Section —

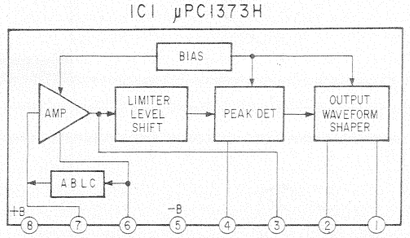


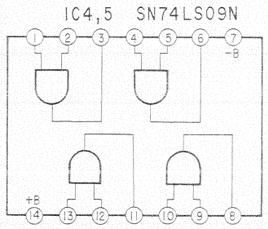


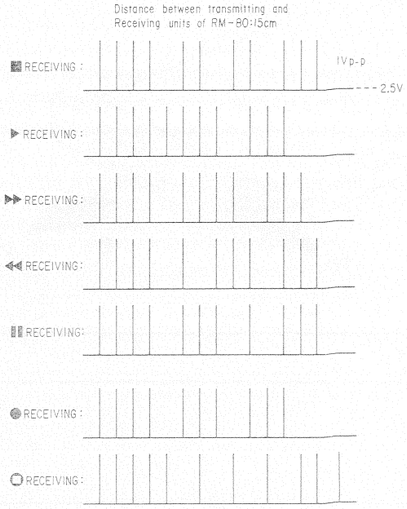
INPUT	LATCH INPUT(DECIMAL)	TERMINALS WHERE LEVEL BECOMES 0
■	0101 (5)	S5
▶	0000 (0)	S0
▶▶	0001 (1)	S1
◀◀	0011 (3)	S3
▮▮	1001 (9)	S9
●	0010 (2)	S2
○	1010 (10)	S10

S0–S10 outputs are selected at each input and only one terminal level becomes "1"









Note:

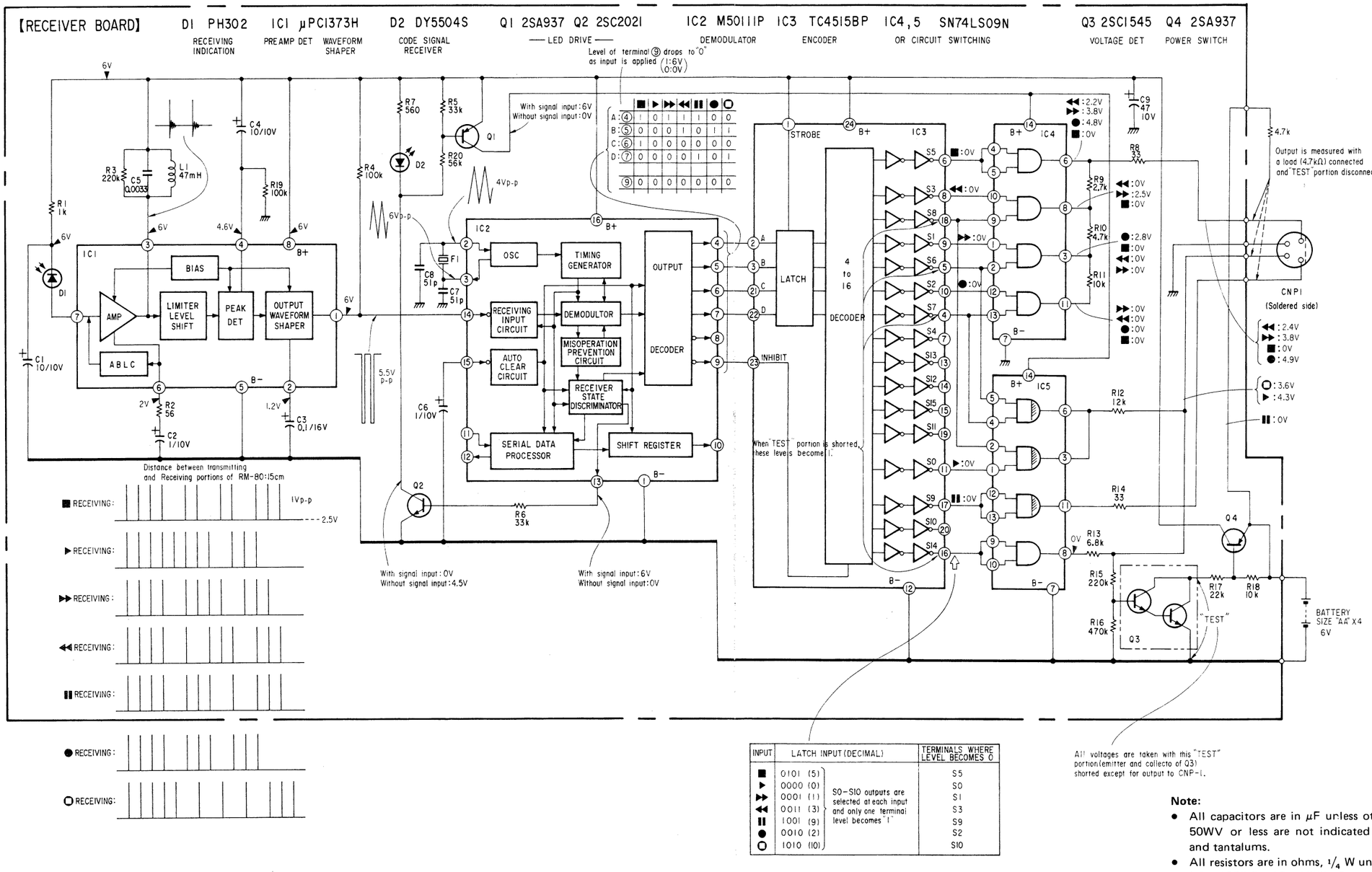
- ○—— : parts extracted from the component side.

Semiconductor Lead Layouts

M50111P SN74LS09N TC4515BP	μPC1373H	PH302B	RY5504S-1	2 SA937 2 SC1545A 2 SC2021 2 SC2673
line or slit or dot; 1 2 n n+1 (Top view)	cut or dot; 1 2 n	anode cathode	long short anode cathode	B C E

2-2. SCHEMATIC DIAGRAM

– Receiver Section –



INPUT	LATCH INPUT (DECIMAL)		TERMINALS WHERE LEVEL BECOMES 0
■	0101 (5)	S0–S10 outputs are selected at each input and only one terminal level becomes "1"	S5
▶	0000 (0)		S0
▶▶	0001 (1)		S1
◀◀	0011 (3)		S3
▮▮	1001 (9)		S9
●	0010 (2)		S2
○	1010 (10)		S10

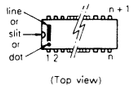
All voltages are taken with this "TEST" portion(emitter and collecto of Q3) shorted except for output to CNP-1.

Note:

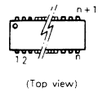
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4 W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions.
- Waveforms are taken at the specified mode in the schematic diagram.

Semiconductor Lead Layouts

M50110P
TC4066BP

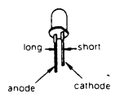


MB84069B



1S1555

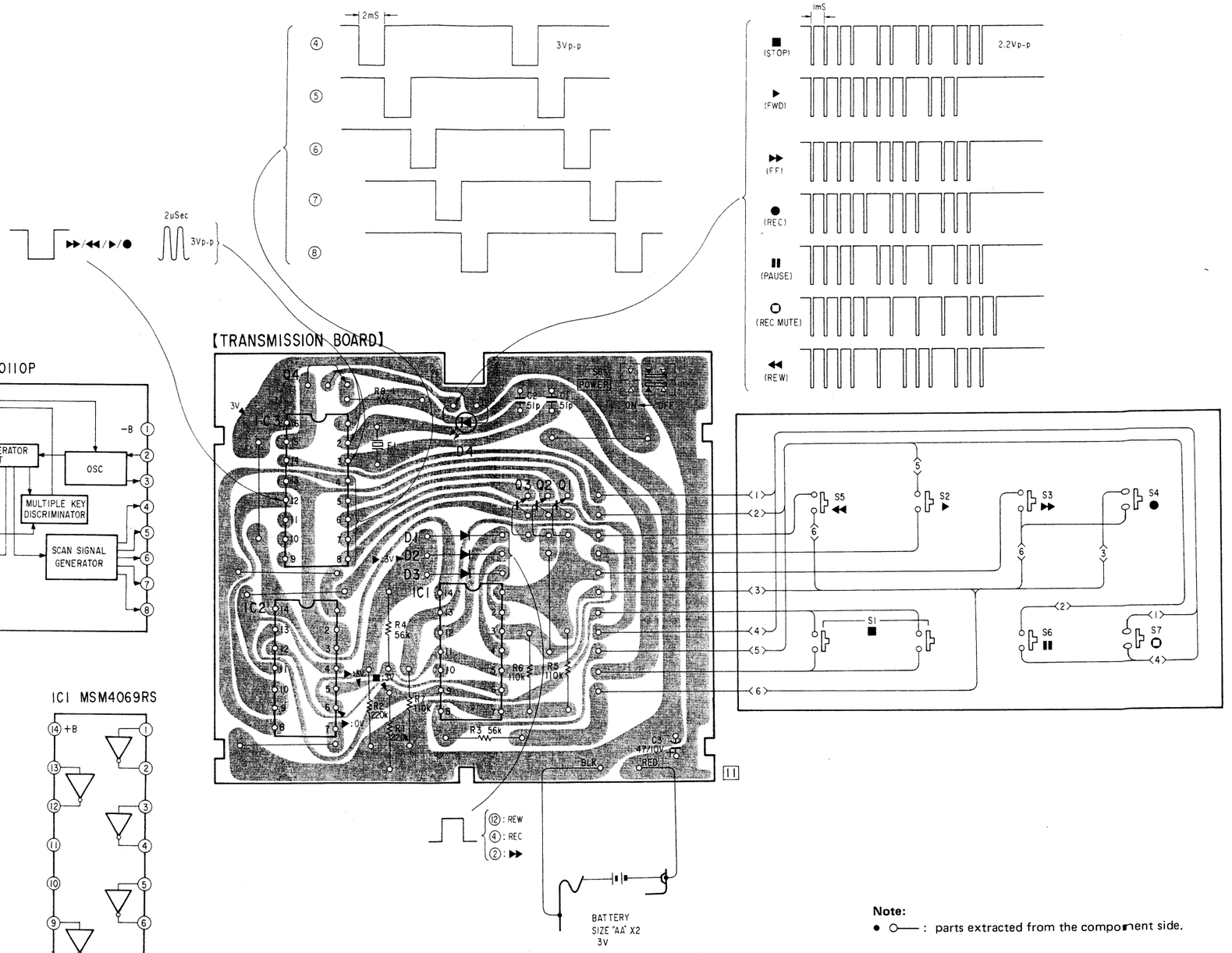
SE303AX



2SC2021
2SC2673

2-3. MOUNTING DIAGRAM

– Transmitter Section –

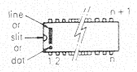


Note:

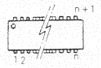
● ○—— : parts extracted from the component side.

Semiconductor Lead Layouts

M50110P
TC4066BP

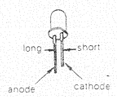


MB84069B



1S1555

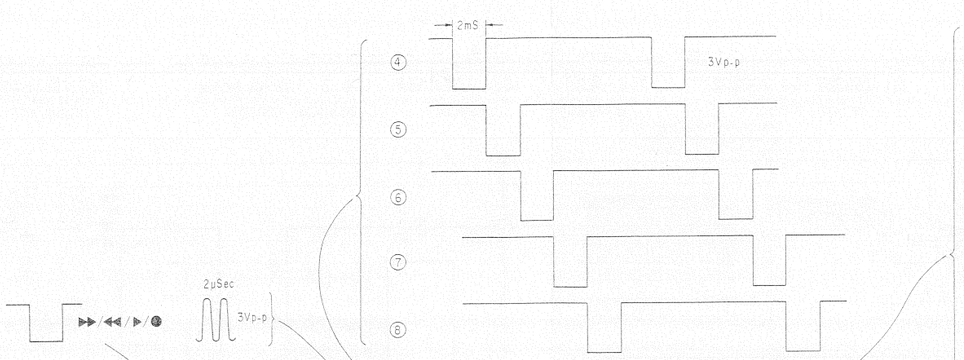
SE303AX

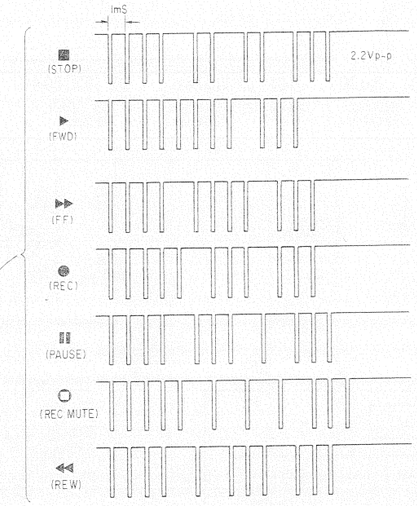


2SC2021
2SC2673

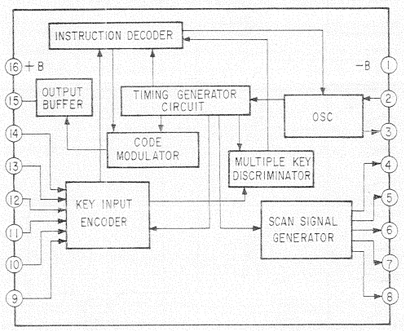
2-3. MOUNTING DIAGRAM

— Transmitter Section —

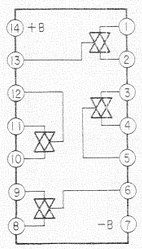




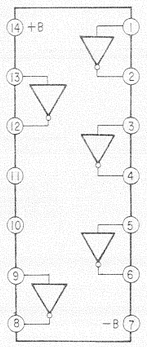
IC3 M50110P



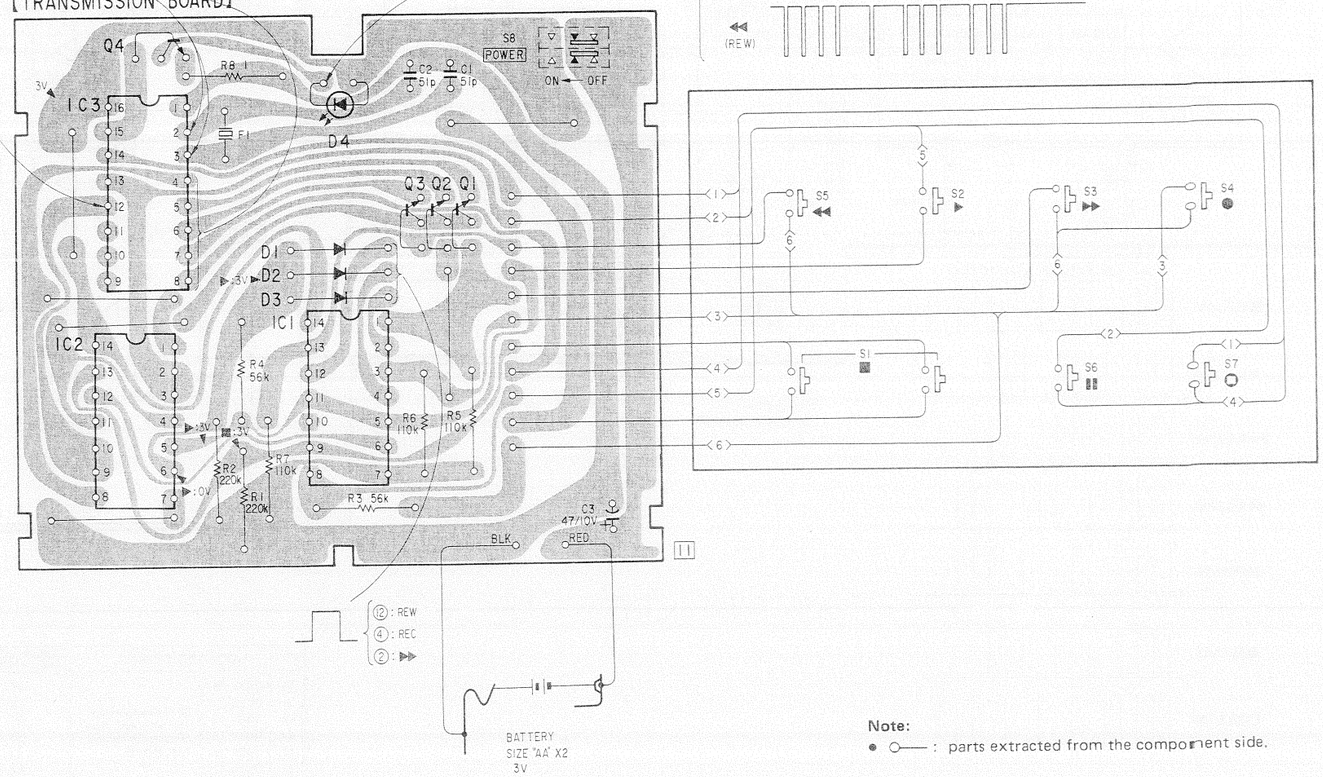
IC2 HD14066BP



IC1 MSM4069RS



【TRANSMISSION BOARD】

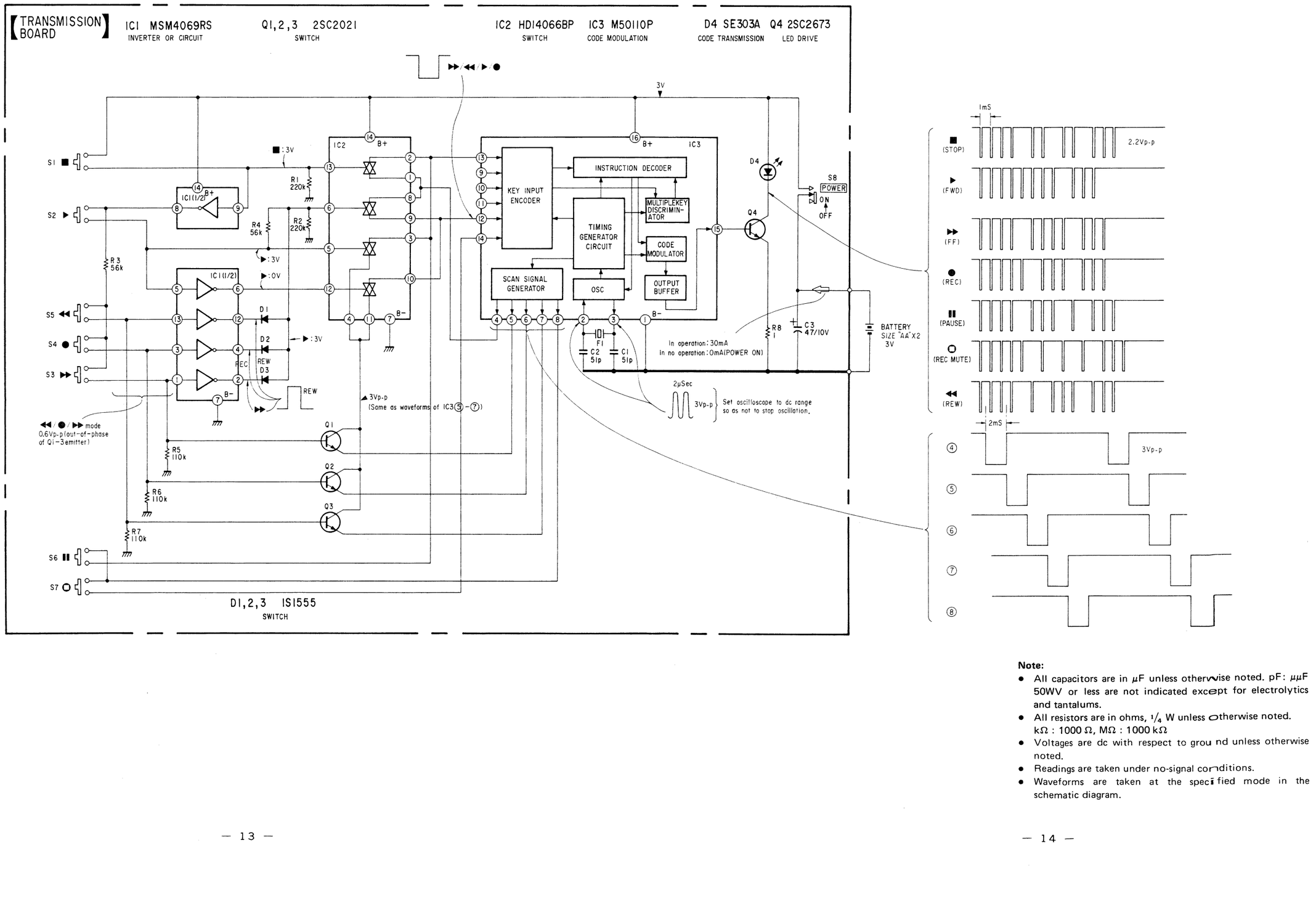


Note:

● ○— : parts extracted from the component side.

2-4. SCHEMATIC DIAGRAM

– Transmitter Section –

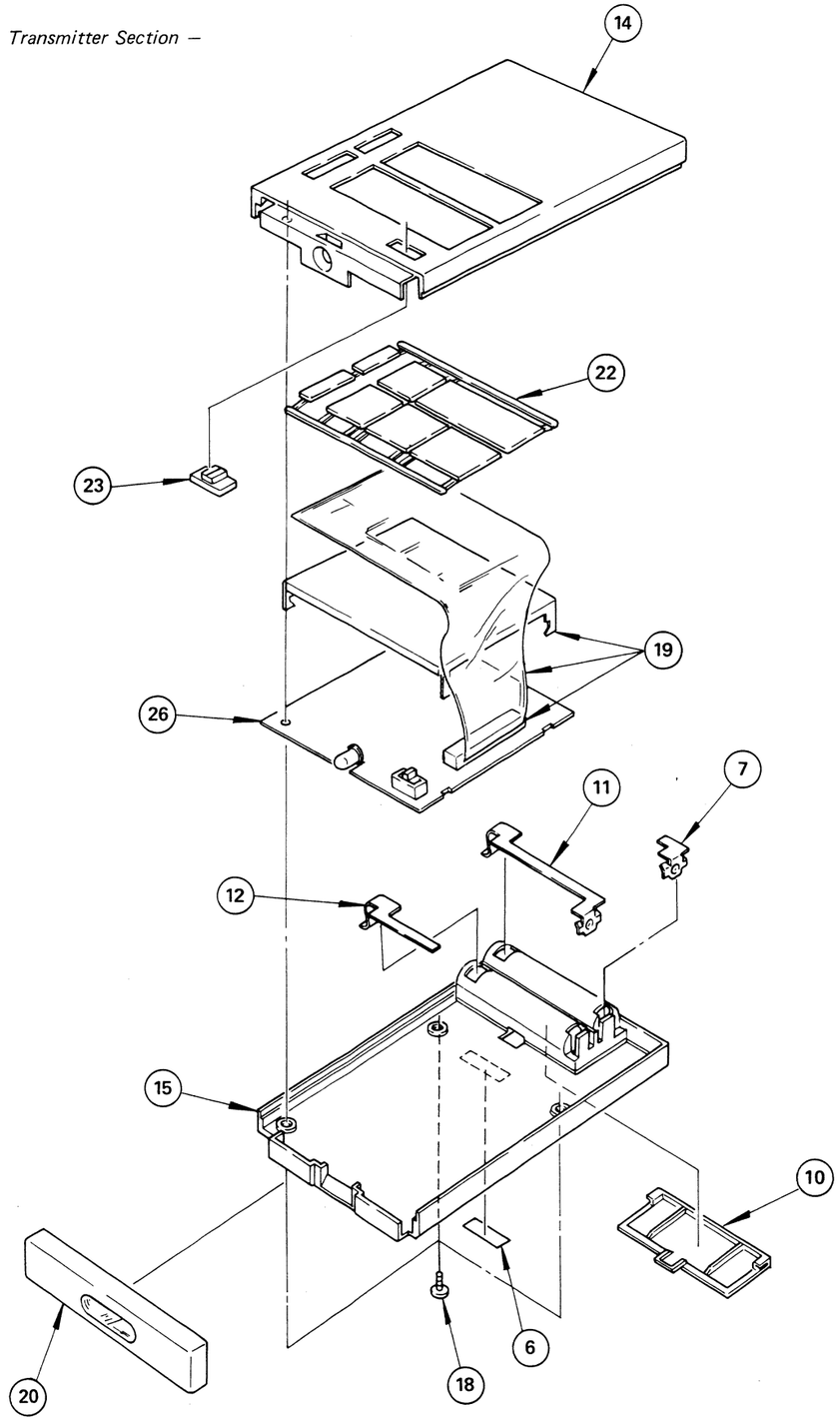


Note:

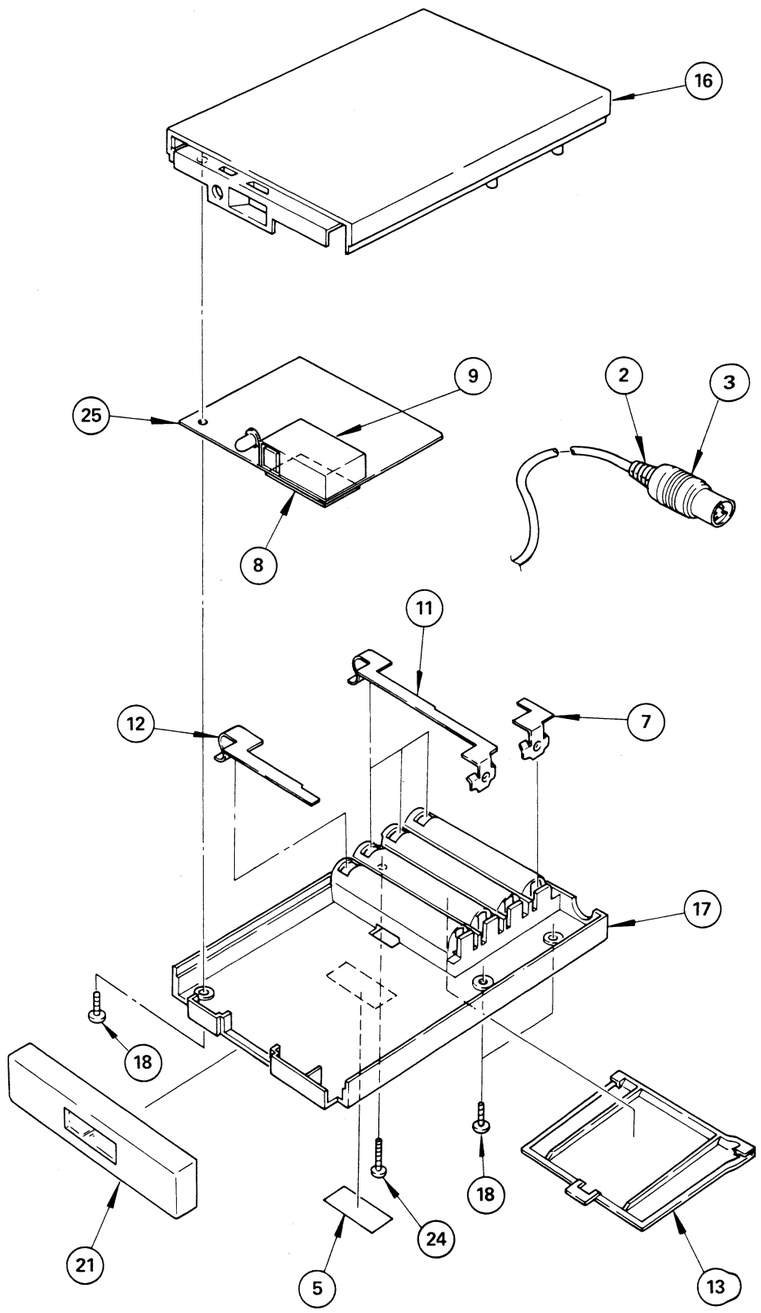
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4 W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions.
- Waveforms are taken at the specified mode in the schematic diagram.

3. EXPLODED VIEW

– Transmitter Section –



– Receiver Section –



GENERAL SECTION

No.	Part No.	Description
1	.....	
2	.....	
3	1-555-659-21	CORD (WITH PLUG)
4	2-192-616-00	BUSHING (DIA,4), CORD
5 ♦	2-196-134-00	LABEL, MODEL NUMBER
6 ♦	2-196-133-00	LABEL, MODEL NUMBER
7	2-196-109-00	TERMINAL, BATTERY
8 ♦	2-196-115-00	CASE, SHIELD (LOWER)
9 ♦	2-196-116-00	CASE, SHIELD (UPPER)
10	2-196-123-00	COVER (TRANS)
11	2-196-124-00	TERMINAL, BATTERY
12	2-196-125-00	TERMINAL, BATTERY
13	2-196-127-00	COVER (RECE)
14	2-196-128-00	CASE, INSULATING
15	2-196-129-00	CASE, INSULATING
16	2-196-130-00	CASE, INSULATING
17	2-196-131-00	CASE, INSULATING
18	7-685-105-21	SCREW +P 2X8, TYPE 2, SLIT
19	A-2053-085-A	SWITCH ASSY, SYSTEM CONTROL
20	A-2154-005-A	CAP ASSY, FRONT, TRANSMITTER
21	A-2154-006-A	CAP ASSY, FRONT, RECEIVER
22	X-2196-101-0	KEY TOP ASSY
23	X-2196-102-0	KNOB ASSY, SWITCH
24	- - -	CROSS RECESS TAPPING 1.7X7
25 ♦		RECEIVER BOARD
26 ♦		TRANSMISSION BOARD

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
31	1-528-065-00	BATTERY UM-4
32 ♦	2-196-005-00	BRACKET
33	2-196-135-00	CARTON
34	2-196-103-00	PAD
35	2-196-105-00	SHEET, AIR CAP
36	.....	
37	3-701-613-00	BAG, POLYETHYLENE
38	3-701-616-00	BAG, POLYETHYLENE
39	3-701-622-00	BAG, POLYETHYLENE
40	3-783-488-11	MANUAL, INSTRUCTION
41	7-621-849-10	SCREW, WOOD +R 3.1X13

ELECTRICAL PARTS

Ref.No.	Part No.	Description
	1-404-310-00	COIL
	1-527-476-00	OSCILLATOR, CERAMIC
C5	1-161-213-00	CAP, CERAMIC 0.0033MF 5% 50V (RECE)
D1	8-719-815-55	DIODE 1S1555 (TRANS)
D1	8-719-100-32	DIODE PH302B (RECE)
D2	8-719-955-04	DIODE PY5504S-1 (RECE)
D2	8-719-815-55	DIODE 1S1555 (TRANS)
D3	8-719-815-55	DIODE 1S1555 (TRANS)
D4	8-719-103-03	DIODE SE303AX (TRANS)
Q1	8-729-993-72	TRANSISTOR 2SA937 (RECE)
Q1	8-729-902-11	TRANSISTOR 2SC2021 (TRANS)
Q2	8-729-902-11	TRANSISTOR 2SC2021 (TRANS)
Q2	8-729-902-11	TRANSISTOR 2SC2021 (RECE)
Q3	8-729-902-11	TRANSISTOR 2SC2021 (TRANS)
Q3	8-729-954-51	TRANSISTOR 2SC1545A (RECE)
Q4	8-729-967-32	TRANSISTOR 2SC2673 (TRANS)
Q4	8-729-993-72	TRANSISTOR 2SA937 (RECE)
IC1	8-759-113-73	IC UPC1373H (RECE)
IC1	8-759-904-69	IC MSM4069RS (TRANS)
IC2	8-759-650-11	IC M50111P (RECE)
IC2	8-759-240-66	IC TC4066BP (TRANS)
IC3	8-759-650-10	IC M50110P (TRANS)
IC3	8-759-245-15	IC TC4515BP (RECE)
IC4	8-759-900-09	IC SN74LS09N (RECE)
IC5	8-759-900-09	IC SN74LS09N (RECE)

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS
- MMH : mH, UH : μH